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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/007,864 | 11/08/2001 | Robert Alan Pitsch | PU010250 | 6501 |

7590 05/03/2005

JOSEPH S. TRIPOLI
THOMSON MULTIMEDIA LICENSING INC.
2 INDEPENDENCE WAY
P.O. BOX 5312
PRINCETON, NJ 08543-5312

EXAMINER

SWERDLOW, DANIEL

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2644

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/007,864

Applicant(s)

PITSCH ET AL.

Examiner

Daniel Swerdlow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1, 7, 8 through 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin (US Patent 4,577,255) in view of Akdag et al. (US Patent 6,243,247).**

3. Regarding Claim 1, Martin discloses a lightning (i.e., electrical static discharge) protection circuit comprising: two zener diodes (Fig. 2, reference Z7, Z8; column 4, lines 7-10) that limit the voltage across (i.e., detect and pass ESD passing through) a secondary winding of a transformer (Fig. 2, reference L4) of a DSL interface (i.e., a modem). Martin further discloses the zener diodes coupled to ground. However, Martin is silent as to the structure of the connection to ground. Therefore, Martin anticipates all elements of Claim 1 except the coupling to ground being via a ground plane and a ground leg to a chassis. Akdag discloses a transient connection device that makes a ground connection via a ground plane (Fig. 1, reference 24; column 3, line 67 through column 4, line 1) that is connected by a wire that corresponds to the ground leg claimed (Fig. 1, reference 26; column 4, lines 1-3) and connects the ground plane to a system ground (Fig. 1, reference 34; column 5, lines 36 through 38). Akdag further discloses that such an arrangement protects the circuit board from the surge energy (column 5, lines 39-45). It would have been obvious to one skilled in the art at the time of the invention to apply the

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grounding connection taught by Akdag to the protection circuit taught by Martin for the purpose of realizing the aforesaid advantages.

4. Regarding Claim 7, Akdag further discloses the wire that corresponds to the ground leg claimed passing the surge energy (i.e., ESD) from the ground plane directly to the chassis (column 5, lines 36 through 38).

5. All elements of Claims 8, 9 and 10 are comprehended by Claim 1. As such, Claims 8, 9 and 10 are rejected for reasons stated above apropos of Claim 1.

6. Regarding Claim 11, Martin further discloses the transformer winding being a secondary winding (Fig. 2, reference L4).

7. Claim 17 is essentially similar to Claim 1 and is rejected on the same grounds.

8. **Claims 2 through 6 and 12 through 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin in view of Akdag and further in view of Gutzmer et al. (US Patent 6,282,271).**

9. Regarding Claim 2, Martin further discloses the DSL interface (i.e., modem) transformer having a primary winding coupled to the tip and ring lines of a telephone subscriber loop (Fig. 2, reference L1, L2; column 1, lines 64-66), the secondary winding coupled to the transmitter (i.e., directly to the modem) (Fig. 2, reference L4, Drive) and the zener diodes coupled between the respective terminals of the secondary winding and the transmitter (Fig. 2, reference Z7, Z8).

Therefore, the combination of Martin and Akdag makes obvious all elements of Claim 2 except the RJ-11 interface. Gutzmer discloses the use of the RJ-11 interface to couple a modem protection device to a telephone subscriber line (Fig. 1, reference 26; column 3, lines 42-47).

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Gutzmer further discloses that such an arrangement conforms with existing standards. It would have been obvious to one skilled in the art at the time of the invention to apply the RJ-11 connection taught by Gutzmer to the combination made obvious by Martin and Akdag for the purpose of making the combination compatible with existing standards.

10. Regarding Claim 3, Martin further discloses the action of the zener diodes protecting the semiconductor line interface (i.e., modem) (column 1, lines 19-28), which is understood by one skilled in the art as preventing lockup or malfunction.

11. Regarding Claim 4, Martin further discloses the action of the zener diodes protecting the semiconductor line interface (i.e., electronic apparatus) (column 1, lines 19-28), which is understood by one skilled in the art as preventing lockup or malfunction.

12. Regarding Claim 5 and 6, the recitation of an intended use of the protection circuit does not patentably distinguish the claimed invention from the prior art. As such, Claims 5 and 6 are rejected for reasons stated above apropos of Claim 4.

13. Regarding Claim 12, Martin further discloses the DSL interface (i.e., modem) transformer having a primary winding coupled to the tip and ring lines of a telephone subscriber loop (Fig. 2, reference L1, L2; column 1, lines 64-66), the secondary winding coupled to the transmitter (i.e., directly to the modem) (Fig. 2, reference L4, Drive) and the zener diodes coupled between the respective terminals of the secondary winding and the transmitter (Fig. 2, reference Z7, Z8). Therefore, the combination of Martin and Akdag makes obvious all elements of Claim 12 except the RJ-11 interface. Gutzmer discloses the use of the RJ-11 interface to couple a modem protection device to a telephone subscriber line (Fig. 1, reference 26; column 3, lines 42-47). Gutzmer further discloses that such an arrangement conforms with existing

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standards. It would have been obvious to one skilled in the art at the time of the invention to apply the RJ-11 connection taught by Gutzmer to the combination made obvious by Martin and Akdag for the purpose of making the combination compatible with existing standards.

14. Regarding Claim 13, Martin further discloses the action of the zener diodes protecting the semiconductor line interface (i.e., modem) (column 1, lines 19-28), which is understood by one skilled in the art as preventing lockup or malfunction.

15. Regarding Claim 14, Martin further discloses the action of the zener diodes protecting the semiconductor line interface (i.e., electronic apparatus) (column 1, lines 19-28), which is understood by one skilled in the art as preventing lockup or malfunction.

16. Regarding Claim 15 and 16, the recitation of an intended use of the protection circuit does not patentably distinguish the claimed invention from the prior art. As such, Claims 15 and 16 are rejected for reasons stated above apropos of Claim 14.

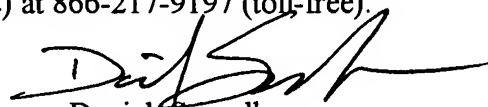
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel Swerdlow
Examiner
Art Unit 2644

ds
29 April 2005